



**[4910-13-P]**

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2018-0795; Product Identifier 2018-NM-076-AD;**

**Amendment 39-19628; AD 2019-08-07]**

**RIN 2120-AA64**

**Airworthiness Directives; Airbus SAS Airplanes**

**AGENCY:** Federal Aviation Administration (FAA), Department of Transportation (DOT).

**ACTION:** Final rule.

**SUMMARY:** We are superseding Airworthiness Directive (AD) 2014-20-04, which applied to all Airbus SAS Model A318 and A319 series airplanes; Airbus SAS Model A320-111, -211, -212, -214, -231, -232, and -233 airplanes; and Airbus SAS Model A321-111, -112, -131, -211, -212, -213, -231, and -232 airplanes. AD 2014-20-04 required repetitive inspections of the titanium angles between the belly fairing and the keel beam side panel, an inspection of the open holes of cracked titanium angles, and corrective action if necessary. This AD continues to require those actions, adds Model A320-216 airplanes, and requires a detailed inspection for, and replacement of, certain rivets, and corrective actions if necessary. This AD was prompted by reports of cracks at the lower riveting of the four titanium angles that connect the belly fairing to the keel beam side panels. We are issuing this AD to address the unsafe condition on these

products.

**DATES:** This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain other publication listed in this AD as of November 7, 2014 (79 FR 59636, October 3, 2014).

**ADDRESSES:** For service information identified in this final rule, contact Airbus SAS, Airworthiness Office – ELIAS, Rond-Point Emile Dewoitine No: 2, 31700 Blagnac Cedex, France; phone: +33 5 61 93 36 96; fax: +33 5 61 93 44 51; email: account.airworth-eas@airbus.com; Internet: <http://www.airbus.com>. You may view this referenced service information at the FAA, Transport Standards Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195. It is also available on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2018-0795.

### **Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2018-0795; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, the regulatory evaluation, any comments

received, and other information. The address for Docket Operations (phone: 800-647-5527) is U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

**FOR FURTHER INFORMATION CONTACT:** Sanjay Ralhan, Aerospace Engineer, International Section, Transport Standards Branch, FAA, 2200 South 216th St., Des Moines, WA 98198; phone and fax: 206-231-3223.

#### **SUPPLEMENTARY INFORMATION:**

##### **Discussion**

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to supersede AD 2014-20-04, Amendment 39-17977 (79 FR 59636, October 3, 2014) (“AD 2014-20-04”). AD 2014-20-04 applied to all Airbus SAS Model A318 series airplanes; Airbus SAS Model A319 series airplanes; Airbus SAS Model A320-111, -211, -212, -214, -231, -232, and -233 airplanes; and Airbus SAS Model A321-111, -112, -131, -211, -212, -213, -231, and -232 airplanes. The NPRM published in the Federal Register on September 17, 2018 (83 FR 46905). The NPRM was prompted by our determination that additional work is necessary for certain airplanes. The NPRM proposed to continue to require repetitive inspections for cracking of the four titanium angles between the belly fairing and the keel beam side panel, an inspection for cracking of the open holes if any cracking is found in the titanium angles, and repair or replacement if necessary. The NPRM also proposed to revise the applicability by adding Model A320-216 airplanes. The NPRM also proposed additional work, including a

detailed inspection for, and replacement of, certain rivets (including a rotating probe test for cracks in the open holes), and corrective actions if necessary. We are issuing this AD to address cracking at the lower riveting of the four titanium angles that connect the belly fairing to the keel beam side panels on both sides of the fuselage, which could affect the structural integrity of the airplane.

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Union, has issued EASA AD 2018-0091, dated April 20, 2018 (referred to after this as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition for all Airbus SAS Model A318 series airplanes; Airbus SAS Model A319 series airplanes; Airbus SAS Model A320-211, -212, -214, -216, -231, -232, and -233 airplanes; and Airbus SAS Model A321-111, -112, -131, -211, -212, -213, -231, and -232 airplanes. The MCAI states:

During the fatigue test campaign of the A320 family type design, cracks were found at the lower riveting of the four titanium angles which connect the belly fairing to the keel beam side panels between frames FR40 and FR42, on both sides of the fuselage.

This condition, if not detected and corrected, could affect the structural integrity of the aeroplane.

To address this potential unsafe condition, Airbus issued Service Bulletin (SB) A320-53-1014, and DGAC [Direction Générale de l’Aviation Civile] France issued AD 92-201-030 [which corresponds to FAA AD 94-12-03, Amendment 39-8930 (59 FR 28763, June 3, 1994)(“AD 94-12-03”)] to require reinforcement of the belly fairing structure.

Following new investigation which showed that these measures addressed only part of the unsafe condition, Airbus published SB A320-53-1259 and EASA issued

AD 2013-0122 [which corresponds to FAA AD 2014-20-04], retaining the requirements of DGAC France AD 92-201-030, which was superseded, and requiring repetitive detailed inspections (DET) of the affected titanium angles and, depending on findings, repair or replacement of parts.

After that [EASA] AD was issued, Airbus published Revision (Rev.) 01 and Rev. 02 of SB A320-53-1259. [Airbus SB A320-53-1259] Rev. 02 provided incorrect instructions to use Part Number (P/N) EN6081D4 rivets for the titanium angles installation, instead of P/N EN6081D5 rivets. Consequently, Airbus SB A320-53-1259 was updated (now at Rev. 03) including reference to the proper rivets.

For the reason described above, this [EASA] AD retains the requirements of EASA AD 2013-0122, which is superseded, and requires additional work [a detailed inspection for and replacement of certain rivets, and applicable corrective actions] for aeroplanes on which Airbus SB A320-53-1259 at Rev. 02 was embodied.

You may examine the MCAI in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2018-0795.

## **Comments**

We gave the public the opportunity to participate in developing this final rule. The following presents the comments received on the NPRM and the FAA's response to each comment.

### **Request to Withdraw the NPRM**

Delta Air Lines (DAL) requested that we re-issue the NPRM using the method where the FAA AD would mandate the EASA AD for compliance (i.e., the “incorporate by reference (IBR) the MCAI” method). DAL pointed out this method would simplify the

understanding of the NPRM and reduce the number of conflicts between the EASA AD and the NPRM.

We acknowledge the commenter's request to use the "IBR the MCAI" method. Using the "IBR the MCAI" method simplifies FAA ADs and facilitates a simpler AD process. However, we disagree with the request to re-issue the NPRM using this method, as it would require an additional public comment period and unnecessarily delay issuance of this final rule, which is necessary to address the identified unsafe condition. However, based on positive feedback from operators, we are expanding the use of the "IBR the MCAI" method, and additional NPRMs and ADs are currently being drafted using this method.

**Request to Use Previously Existing Alternative Method of Compliance (AMOC) for Compliance with this AD**

DAL requested that we allow the use of AMOC ANM-116-15-018 for compliance with all corresponding provisions of the proposed AD. DAL also requested that if the FAA disagrees to include the use of the AMOC as requested, that we include details in the NPRM for addressing the airplanes already inspected and modified using the AMOC and Airbus Service Bulletin A320-53-1259, Revision 01, dated November 26, 2013. DAL mentioned that several airplanes from the DAL fleet were inspected and modified using the AMOC and Airbus Service Bulletin A320-53-1259, Revision 01, dated November 26, 2013. DAL also pointed out that the NPRM does not provide credit for work performed using the AMOC and Airbus Service Bulletin A320-53-1259, Revision 01, dated November 26, 2013.

We agree to allow the use of the AMOC identified by the commenter, as well as all other AMOCs to AD 2014-20-04, and we have added paragraph (r)(1)(ii) to this AD accordingly.

**Request to Use All Revisions of the Service Information for Inspection Compliance in Paragraph (h) of the Proposed AD**

DAL requested that we include Airbus Service Bulletin A320-53-1259, Revision 01, dated November 26, 2013, and Airbus Service Bulletin A320-53-1259, Revision 02, dated March 24, 2016, as service information for the inspection requirements of the proposed AD. DAL pointed out that the removal and installation of the titanium angles is the main concern in limiting the use of Airbus Service Bulletin A320-53-1259, Revision 02, dated March 24, 2016, but that the inspection requirements contain no errors. DAL also indicated concurrence with the requirement to use Airbus Service Bulletin A320-53-1259, Revision 03, dated November 30, 2017, after the effective date of the final rule.

We agree for the reasons provided by the commenter and have revised the introductory text of paragraph (h) and paragraphs (h)(2) and (k) of this AD accordingly. However, we have only revised paragraphs (i)(2), (j), and (l) of this AD to include Airbus Service Bulletin A320-53-1259, Revision 01, dated November 26, 2013, because those paragraphs include installation requirements and Revision 02 of Airbus Service Bulletin A320-53-1259 is not acceptable service information for doing those installations.

**Request to Use Alternative Part Number Titanium Angles**

United Air Lines (UAL) requested that we allow titanium angle part numbers D5337060121295 and D5337060121495 to be installed instead of part numbers

D5337060121200 and D5337060121400, respectively. UAL stated that titanium angle part numbers D5337060121200 and D5337060121400 as specified by Airbus Service Bulletin A320-53-1259, Revision 03, dated November 30, 2017, are not procurable. UAL mentioned that Airbus indicated to UAL that titanium angle part numbers D5337060121295 and D5337060121495 are acceptable for installation for Airbus Service Bulletin A320-53-1259, Revision 03, dated November 30, 2017.

We agree with the commenter for the reasons provided. We have added paragraph (q) to this AD to allow the installation of titanium angle part numbers D5337060121295 and D5337060121495. We have redesignated subsequent paragraphs accordingly.

**Request to Revise the Affected Airplanes for Paragraph (o) of the Proposed AD**

DAL and UAL requested that we revise the affected airplanes for paragraph (o) of the proposed AD. UAL requested that we clarify the service information reference for description of the affected airplanes in paragraph (o) of the proposed AD. DAL and UAL pointed out that the MCAI specifies Revision 02 of Airbus Service Bulletin A320-23-1259 for the action specified in paragraph (o) of the proposed AD and that paragraph (o) of the proposed AD specifies Airbus Service Bulletin A320-53-1259, dated November 6, 2012, for identifying affected airplanes.

In addition, DAL requested that we revise paragraph (o) of the proposed AD to apply only to airplanes which had titanium angles removed and replaced in accordance with sub-task 531259-203-001 of Airbus Service Bulletin A320-53-1259, Revision 02, dated March 24, 2016. DAL pointed out that paragraph (o) of the proposed AD specified



airplanes which were inspected using Airbus Service Bulletin A320-53-1259, dated November 6, 2012. DAL mentioned that the unsafe condition was introduced in Airbus Service Bulletin A320-53-1259, Revision 02, dated March 24, 2016, and that there are no airworthiness concerns with the inspections (only replacements) accomplished under any revision of the service information.

We agree that paragraph (o) of this AD should refer to Airbus Service Bulletin A320-53-1259, Revision 02, dated March 24, 2016, to identify the affected airplanes as specified in the MCAI, and we have revised paragraph (o) of this AD accordingly.

We also agree with the request to limit the affected airplanes to those that had titanium angles replaced in accordance with sub-task 531259-203-001 of Airbus Service Bulletin A320-53-1259, Revision 02, dated March 24, 2016. However, we have determined that the phrase “modified (replacement of affected titanium angles),” which matches the intent of the language in the MCAI, is more appropriate instead of listing specific sub-tasks for replacement. Operators may have installed these rivets in accordance with instructions approved by Airbus SAS under EASA’s Design Organization Approval (DOA) outside of the service information sub-task. Therefore, we have not changed this AD further in this regard.

#### **Request for Clarification of Paragraph (k) of the Proposed AD**

UAL requested clarification of the intent of paragraph (k) of the proposed AD. UAL specified that the intent should be a detailed inspection of the “replaced” titanium angles and not an inspection of the four titanium angles. UAL explained that paragraph

(j) of the proposed AD states to remove the affected [cracked] titanium angle(s), and the next inspection per paragraph (k) of the proposed AD would apply to the replaced titanium angles, not necessarily all four titanium angles.

We agree for the reasons provided by the commenter, and we have revised paragraph (k) of this AD accordingly.

**Request to Include Additional Data to Correct an Error in the Service Information**

UAL requested that we include information to correct an error in the service information. UAL stated that figure A-GCAAA Sheet 02 of Airbus Service Bulletin A320-53-1259, Revision 03, dated November 30, 2017, shows views A-A and B-B in reversed left and right direction and that view B-B is missing one rivet location. UAL also stated that this error makes it possible to install incorrect rivets during angle replacement. UAL mentioned that it had contacted Airbus about this error, and that Airbus published Technical Adaptation 80491184/005/2018 to temporarily correct the error. UAL also mentioned that Airbus plans to revise Service Bulletin A320-53-1259 to correct this error.

We agree with the commenter's request for the reasons provided. To ensure operators refer to the correct views and rivet locations, we have revised this AD by referencing Airbus Technical Adaptation 80491184/005/2018, Issue 1, dated February 08, 2018, in lieu of Figure A GCAAA – Sheet 02 of Airbus Service Bulletin A320-53-1259, Revision 03, dated November 30, 2017, wherever it is appropriate.

### **Request to Verify the Required Service Information Prior to AD Publication**

UAL requested that we verify the latest revision of Service Bulletin A320-53-1259 is referenced in this AD prior to final publication. UAL indicated its preference not to request an AMOC allowing use of a later revision of the service information immediately after AD publication.

We agree and have confirmed that Airbus Service Bulletin A320-53-1259, Revision 03, dated November 30, 2017, is the latest version of the service information. We have not changed this AD in this regard.

### **Request to Expand the Airplanes Specified in Paragraph (o) of the proposed AD**

UAL requested that we expand the airplanes specified in paragraph (o) of the proposed AD to include all angles that were replaced using any service information issued prior to Airbus Service Bulletin A320-53-1259, Revision 03, dated November 30, 2017, unless maintenance records show that the correct rivets were previously installed. UAL pointed out that revisions issued prior to Airbus Service Bulletin A320-53-1259, Revision 02, dated March 24, 2016, did not specify any procedures to install rivets to the keel beam side panel. UAL mentioned that it could then be possible that an angle replacement done previously using Airbus Service Bulletin A320-53-1259, dated November 6, 2012, or Airbus Service Bulletin A320-53-1259, Revision 01, dated November 26, 2013, might have missing or incorrect rivets installed.

We disagree with the request to expand the affected airplanes specified in paragraph (o) of this AD. As discussed previously, we have clarified that the affected airplanes specified in paragraph (o) of this AD are those on which a modification

(replacement of affected titanium angles) was done in accordance with Airbus Service Bulletin A320-53-1259, Revision 02, dated March 24, 2016, and not airplanes on which an inspection was done. Additionally, we have not received any information from either EASA or Airbus regarding expanding the scope of the potential unsafe condition. The new requirements in this AD are a result of incorrect dimensions of the rivet part number provided in Airbus Service Bulletin A320-53-1259, Revision 02, dated March 24, 2016. No such information was provided by Airbus in the previous revisions of the service information. We have not changed this AD in this regard.

#### **Request for Clarification of Paragraph (o) of the Proposed AD**

DAL requested that, to reduce confusion, we include clarification in paragraph (o) of the proposed AD, that EN6081D5 rivets only need to be installed in the fastener holes common to the titanium angle and belly fairing wall joint. DAL mentioned that paragraph (o) of the proposed AD provides relief for the on-wing inspection if it can be determined no titanium angles were installed in accordance with Airbus Service Bulletin A320-53-1259, Revision 02, dated March 24, 2016, or if only EN6081D5 rivets were used to install the titanium angles on that airplane. DAL pointed out that the titanium angles are installed using both hi-lok fasteners as well as rivets. DAL also indicated that the hi-lok fasteners are common to the keel beam panel and the rivets are common to the belly fairing walls.

We agree to clarify. The service information provides specific information for a detailed inspection for the rivets on the titanium angles and belly fairing shear wall attachments between frames (FR)40 and FR42. Additionally, as specified previously,

Airbus has issued Airbus Technical Adaptation 80491184/005/2018, Issue 1, dated February 08, 2018, as an exception to Figure A GCAAA – Sheet 02 of Airbus Service Bulletin A320-53-1259, Revision 03, dated November 30, 2017, which we have included in this AD. Therefore, in paragraph (o) of this AD, where it specifies “or if only EN6081D5 rivets were used to install the titanium angles on that airplane,” the installation location for rivets is on the titanium angles and belly fairing shear wall attachments as identified in the service information. Since the service information provides this information, we have not changed this AD further regarding this issue.

#### **Request to Use Additional Guidance for Correct Fasteners**

DAL requested that we include additional guidance for accomplishing the titanium angle replacement. DAL stated that Airbus issued Operator Information Telex (OIT) 16-0032, Rev. 00, dated June 3, 2016, that specified the required rivets to use for the replacement. DAL also mentioned that Airbus issued Technical Adaptation 80170642/022/2017, dated April 7, 2017, to Airbus Service Bulletin A320-53-1259, Revision 02, dated March 24, 2016, which specified the correct rivets for the replacement. DAL added that the FAA could provide credit for airplanes on which the correct rivets were installed using the OIT or technical adaptation.

We disagree with the request. Paragraph (p)(2) of this AD refers to Airbus Service Bulletin A320-53-1259, Revision 03, dated November 30, 2017, and Airbus Technical Adaptation 80491184/005/2018, Issue 1, dated February 08, 2018, which provide adequate service information for completing the replacement required if any part number EN6081D4 series rivet is found during any inspection required by paragraph (o) of this

AD. This AD corresponds to EASA AD 2018-0091, dated April 20, 2018, which does not permit Airbus OIT 16-0032, Rev. 00, dated June 3, 2016, and Airbus Technical Adaptation 80170642/022/2017, dated April 7, 2017, as methods of compliance. We agree that those documents are not acceptable methods of compliance with this AD because those documents only specify the part numbers as well as the location and quantity of the parts.

However, we do agree to clarify the statement in paragraph (o) of this AD that describes a method of compliance for the actions required by paragraph (o) of this AD. Paragraph (o) of this AD provides relief for airplanes on which “it can be determined that no titanium angles have been installed on that airplane in accordance with the Accomplishment Instructions of Revision 02 of Airbus Service Bulletin A320-53-1259, or if only rivets having part number EN6081D5 have been used to install the titanium angles.” We have revised paragraph (o) of this AD to clarify that the “in accordance with the Accomplishment Instructions of Revision 02 of Airbus Service Bulletin A320-53-1259” applies to the whole statement.

#### **Clarification of Retained Effective Date for Paragraph (g) of this AD**

In the introductory text of paragraph (g) of the proposed AD we retained a compliance time that referred to the effective date of the existing AD. However, we did not include the specific date of AD 2014-20-04. We have revised the introductory text of paragraph (g) of this AD to refer to the effective date of AD 2014-20-04 (November 7, 2014).

### **Clarification of Retained Effective Date for Paragraph (h)(3) of this AD**

In paragraph (h)(3) of the proposed AD we retained a compliance time that referred to the effective date of the existing AD. However, we did not include the effective date of AD 2014-20-04. We have revised paragraph (h)(3) of this AD to refer to the effective date of AD 2014-20-04 (November 7, 2014).

### **Conclusion**

We reviewed the relevant data, considered the comments received, and determined that air safety and the public interest require adopting this final rule with the changes described previously and minor editorial changes. We have determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM for addressing the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM.

We also determined that these changes will not increase the economic burden on any operator or increase the scope of this final rule.

### **Related Service Information under 1 CFR part 51**

Airbus has issued Service Bulletin A320-53-1259, Revision 03, dated November 30, 2017. This service information describes procedures for repetitive inspections for cracking of the four titanium angles between the belly fairing and the keel beam side panel, an inspection for cracking of the open holes if any cracking is found in

the titanium angles, repair or replacement if necessary, and a detailed inspection for and replacement of certain rivets (including a rotating probe test for cracks in the open holes).

Airbus has also issued Technical Adaptation 80491184/005/2018, Issue 1, dated February 08, 2018. This service information describes a correction to Airbus Service Bulletin A320-53-1259, Revision 03, dated November 30, 2017.

This AD also requires Airbus Service Bulletin A320-53-1014, Revision 2, dated September 1, 1994, which the Director of the Federal Register approved for incorporation by reference as of November 7, 2014 (79 FR 59636, October 3, 2014).

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

### **Costs of Compliance**

We estimate that this AD affects 1,250 airplanes of U.S. registry. We estimate the following costs to comply with this AD:

#### **Estimated costs**

<b>Labor cost</b>	<b>Parts cost</b>	<b>Cost per product</b>	<b>Cost on U.S. operators</b>
295 work-hours X \$85 per hour = \$25,075 (Retained actions from AD 2014-20-04)	\$1,045	\$26,120	\$32,650,000
Up to 168 work-hours X \$85 per hour = Up to \$14,280 (New actions of this AD)	\$0	Up to \$14,280	Up to \$17,850,000



We estimate the following costs to do any necessary replacement that would be required based on the results of the inspection. We have no way of determining the number of aircraft that might need this replacement:

**Estimated costs of on-condition actions**

<b>Labor cost</b>	<b>Parts cost *</b>	<b>Cost per product</b>
168 work-hours X \$85 per hour = \$14,280	\$0	\$14,280

\*We have received no definitive data that would enable us to provide cost estimates for the on-condition parts costs.

**Authority for This Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

This AD is issued in accordance with authority delegated by the Executive Director, Aircraft Certification Service, as authorized by FAA Order 8000.51C. In accordance with that order, issuance of ADs is normally a function of the Compliance

and Airworthiness Division, but during this transition period, the Executive Director has delegated the authority to issue ADs applicable to transport category airplanes and associated appliances to the Director of the System Oversight Division.

### **Regulatory Findings**

We determined that this AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

1. Is not a “significant regulatory action” under Executive Order 12866;
2. Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
3. Will not affect intrastate aviation in Alaska; and
4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

### **Adoption of the Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

### **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

**§ 39.13 [Amended]**

2. The FAA amends § 39.13 by removing Airworthiness Directive (AD) 2014-20-04, Amendment 39-17977 (79 FR 59636, October 3, 2014), and adding the following new AD:

**2019-08-07 Airbus SAS:** Amendment 39-19628; Docket No. FAA-2018-0795; Product Identifier 2018-NM-076-AD.

**(a) Effective Date**

This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**(b) Affected ADs**

This AD replaces AD 2014-20-04, Amendment 39-17977 (79 FR 59636, October 3, 2014) (“AD 2014-20-04”).

**(c) Applicability**

This AD applies to the Airbus SAS airplanes specified in paragraphs (c)(1), (c)(2), (c)(3), and (c)(4) of this AD, certificated in any category, all manufacturer serial numbers.

(1) Model A318-111, -112, -121, and -122 airplanes.

(2) Model A319-111, -112, -113, -114, -115, -131, -132, and -133 airplanes.

(3) Model A320-211, -212, -214, -216, -231, -232, and -233 airplanes.

(4) Model A321-111, -112, -131, -211, -212, -213, -231, and -232 airplanes.

**(d) Subject**

Air Transport Association (ATA) of America Code 53, Fuselage.

**(e) Reason**

This AD was prompted by reports of cracks at the lower riveting of the four titanium angles that connect the belly fairing to the keel beam side panels on both sides of the fuselage. We are issuing this AD to address cracking of the titanium angles that connect the belly fairing to the keel beam side panels on both sides of the fuselage, which could affect the structural integrity of the airplane.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

**(g) Retained Modification, with No Changes**

This paragraph restates the requirements of paragraph (g) of AD 2014-20-04, with no changes. For Model A320--211 and -231 series airplanes, manufacturer serial numbers 003 through 092 inclusive: Prior to the accumulation of 12,000 total landings on the airplane, or within 300 days after January 10, 1994 (the effective date of AD 93-24-11, Amendment 39-8760 (58 FR 64875, December 10, 1993)), whichever occurs later, modify the belly fairing structure, in accordance with the Accomplishment Instructions of an Airbus service bulletin specified in paragraph (g)(1), (g)(2), or (g)(3) of this AD. As of November 7, 2014 (the effective date of AD 2014-20-04), use only the Airbus service bulletin specified in paragraph (g)(3) of this AD.

(1) Airbus Industrie Service Bulletin A320-53-1014, dated June 25, 1992.

(2) Airbus Industrie Service Bulletin A320-53-1014, Revision 1, dated May 26, 1993.

(3) Airbus Service Bulletin A320-53-1014, Revision 2, dated September 1, 1994.

**(h) Retained Repetitive Inspection, with Updated Service Information**

This paragraph restates the requirements of paragraph (h) of AD 2014-20-04, with updated service information. At the latest of the compliance times specified in paragraphs (h)(1), (h)(2), and (h)(3) of this AD: Do a detailed inspection for cracking of the four titanium angles between the belly fairing and the keel beam side panel, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-53-1259, dated November 6, 2012; Airbus Service Bulletin A320-53-1259, Revision 01, dated November 26, 2013; Airbus Service Bulletin A320-53-1259, Revision 02, dated March 24, 2016; or Airbus Service Bulletin A320-53-1259, Revision 03, dated November 30, 2017. After the effective date of this AD, only Airbus Service Bulletin A320-53-1259, Revision 03, dated November 30, 2017, may be used. Where Airbus Service Bulletin A320-53-1259, Revision 03, dated November 30, 2017, specifies to refer to Figure A GCAAA – Sheet 02, instead use Airbus Technical Adaptation 80491184/005/2018, Issue 1, dated February 08, 2018.

(1) Before the accumulation of 30,000 total flight cycles or 60,000 total flight hours, whichever occurs first after first flight of the airplane.

(2) Within 30,000 flight cycles or 60,000 flight hours, whichever occurs first after modification of the airplane as required by paragraph (g) of this AD, or after installation

of new titanium angles, provided that, prior to installation, a rototest for cracking on the open holes has been accomplished with no crack findings, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-53-1259, dated November 6, 2012; Airbus Service Bulletin A320-53-1259, Revision 01, dated November 26, 2013; Airbus Service Bulletin A320-53-1259, Revision 02, dated March 24, 2016; or Airbus Service Bulletin A320-53-1259, Revision 03, dated November 30, 2017. After the effective date of this AD, only Airbus Service Bulletin A320-53-1259, Revision 03, dated November 30, 2017, may be used. Where Airbus Service Bulletin A320-53-1259, Revision 03, dated November 30, 2017, specifies to refer to Figure A GCAAA – Sheet 02, instead use Airbus Technical Adaptation 80491184/005/2018, Issue 1, dated February 08, 2018.

(3) Within 3,000 flight cycles or 6,000 flight hours, whichever occurs first after November 7, 2014 (the effective date of AD 2014-20-04).

**(i) Retained Post-Inspection Actions for No Crack Findings, with Updated Service Information**

This paragraph restates the requirements of paragraph (i) of AD 2014-20-04, with updated service information. If, during any inspection required by paragraph (h) of this AD, there is no crack finding: Accomplish the actions specified in either paragraph (i)(1) or (i)(2) of this AD.

(1) Repeat the inspection required by paragraph (h) of this AD at intervals not to exceed 5,000 flight cycles or 10,000 flight hours, whichever occurs first.

(2) Before further flight after the inspection required by paragraph (h) of this AD, remove all inspected titanium angles, accomplish a rototest for cracking on the open

holes and, provided no cracks are found, install new titanium angles, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-53-1259, dated November 6, 2012; Airbus Service Bulletin A320-53-1259, Revision 01, dated November 26, 2013; or Airbus Service Bulletin A320-53-1259, Revision 03, dated November 30, 2017. After the effective date of this AD, only Airbus Service Bulletin A320-53-1259, Revision 03, dated November 30, 2017, may be used. Where Airbus Service Bulletin A320-53-1259, Revision 03, dated November 30, 2017, specifies to refer to Figure A GCAAA – Sheet 02, instead use Airbus Technical Adaptation 80491184/005/2018, Issue 1, dated February 08, 2018.

**(j) Retained Post-Inspection Actions for Any Crack Findings, with Updated Service Information**

This paragraph restates the requirements of paragraph (j) of AD 2014-20-04, with updated service information. If, during any inspection required by paragraph (h) of this AD, there is any crack finding: Before further flight, remove the affected titanium angle(s), accomplish a rototest for cracking on the open holes, and, provided no cracks are found, install new titanium angles, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-53-1259, dated November 6, 2012; Airbus Service Bulletin A320-53-1259, Revision 01, dated November 26, 2013; or Airbus Service Bulletin A320-53-1259, Revision 03, dated November 30, 2017. After the effective date of this AD, only Airbus Service Bulletin A320-53-1259, Revision 03, dated November 30, 2017, may be used. Where Airbus Service Bulletin A320-53-1259, Revision 03, dated November 30, 2017, specifies to refer to Figure A GCAAA –

Sheet 02, instead use Airbus Technical Adaptation 80491184/005/2018, Issue 1, dated February 08, 2018.

**(k) Retained Post-Installation Repetitive Inspections, with Updated Service Information and Revised Compliance Language**

This paragraph restates the requirements of paragraph (k) of AD 2014-20-04, with updated service information and revised compliance language. For airplanes on which new titanium angles were installed as specified in paragraph (i)(2) or (j) of this AD: Within 30,000 flight cycles or 60,000 flight hours, whichever occurs first after the installation, accomplish a detailed inspection for cracking of the replaced titanium angles between the belly fairing and the keel beam side panel, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-53-1259, dated November 6, 2012; Airbus Service Bulletin A320-53-1259, Revision 01, dated November 26, 2013; Airbus Service Bulletin A320-53-1259, Revision 02, dated March 24, 2016; or Airbus Service Bulletin A320-53-1259, Revision 03, dated November 30, 2017. After the effective date of this AD, only Airbus Service Bulletin A320-53-1259, Revision 03, dated November 30, 2017, may be used. Repeat the inspection thereafter at intervals not to exceed 5,000 flight cycles or 10,000 flight hours, whichever occurs first. Where Airbus Service Bulletin A320-53-1259, Revision 03, dated November 30, 2017, specifies to refer to Figure A GCAAA – Sheet 02, instead use Airbus Technical Adaptation 80491184/005/2018, Issue 1, dated February 08, 2018.



**(l) Retained Post-Inspection Actions for Any Crack Findings During Post-Installation Inspections, with Updated Service Information**

This paragraph restates the requirements of paragraph (l) of AD 2014-20-04, with updated service information. If, during any inspection as required by paragraph (k) of this AD, there is any crack finding: Before further flight, remove the affected titanium angles, accomplish a rototest for cracking on the open holes, and, provided no cracks are found, install new titanium angles, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-53-1259, dated November 6, 2012; Airbus Service Bulletin A320-53-1259, Revision 01, dated November 26, 2013; or Airbus Service Bulletin A320-53-1259, Revision 03, dated November 30, 2017. After the effective date of this AD, only Airbus Service Bulletin A320-53-1259, Revision 03, dated November 30, 2017, may be used. Where Airbus Service Bulletin A320-53-1259, Revision 03, dated November 30, 2017, specifies to refer to Figure A GCAAA – Sheet 02, instead use Airbus Technical Adaptation 80491184/005/2018, Issue 1, dated February 08, 2018.

**(m) Retained Corrective Action for Rototest Crack Finding, with Updated Contact Information**

This paragraph restates the requirements of paragraph (m) of AD 2014-20-04, with updated contact information. If, during any rototest as required by paragraph (i), (j), or (l) of this AD, any crack is found: Before further flight, repair using a method approved by the Manager, International Section, Transport Standards Branch, FAA; or the European Aviation Safety Agency (EASA); or Airbus SAS's EASA Design Organization Approval (DOA). If approved by the DOA, the approval must include the DOA-authorized signature.

**(n) Retained No Termination Action for Repetitive Inspections, with No Changes**

This paragraph restates the requirements of paragraph (n) of AD 2014-20-04, with no changes. Repair or replacement of parts as specified in this AD does not terminate the repetitive inspections required by this AD.

**(o) New Requirement of this AD: Detailed Inspection for Certain Rivets**

For airplanes previously modified (replacement of affected titanium angles) using the Accomplishment Instructions of Revision 02 of Airbus Service Bulletin A320-53-1259: At the earlier of the times specified in paragraphs (o)(1) and (o)(2) of this AD, do a detailed inspection of the rivet installation in the belly fairing shear walls and the titanium angles for part number EN6081D4 series rivets in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-53-1259, Revision 03, dated November 30, 2017. A review of the airplane maintenance records is acceptable to comply with the requirements of this paragraph for that airplane, provided it can be determined that no titanium angles have been installed on that airplane in accordance with the Accomplishment Instructions of Revision 02 of Airbus Service Bulletin A320-53-1259, or if only rivets having part number EN6081D5 have been used to install the titanium angles on that airplane in accordance with the Accomplishment Instructions of Revision 02 of Airbus Service Bulletin A320-53-1259. Where Airbus Service Bulletin A320-53-1259, Revision 03, dated November 30, 2017, specifies to refer to Figure A GCAAA – Sheet 02, instead use Airbus Technical Adaptation 80491184/005/2018, Issue 1, dated February 08, 2018.

(1) Within 2,000 flight cycles or 4,000 flight hours, whichever occurs first after the effective date of this AD.

(2) Before exceeding 5,000 flight cycles or 10,000 flight hours, whichever occurs first after accomplishment of the last inspection specified in paragraph (h) of this AD.

**(p) New Requirements of this AD: Replacement of Certain Rivets**

If any part number EN6081D4 series rivet is found during any inspection required by paragraph (o) of this AD, before further flight, do the actions specified in paragraphs (p)(1) and (p)(2) of this AD.

(1) Remove the part number EN6081D4 series rivets and do a rotating probe test of the open holes for cracks, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-53-1259, Revision 03, dated November 30, 2017. If any crack is found during any inspection required by this paragraph, before further flight, obtain corrective actions approved by the Manager, International Section, Transport Standards Branch, FAA; or EASA; or Airbus SAS's EASA DOA; and accomplish the corrective actions within the compliance time specified therein. If approved by the DOA, the approval must include the DOA-authorized signature.

(2) Replace part number EN6081D4 series rivets with part number EN6081D5 series rivets in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-53-1259, Revision 03, dated November 30, 2017. Where Airbus Service Bulletin A320-53-1259, Revision 03, dated November 30, 2017, specifies to refer to Figure A GCAAA – Sheet 02, instead use Airbus Technical Adaptation 80491184/005/2018, Issue 1, dated February 08, 2018.

**(q) Service Information Exception**

Where the Accomplishment Instructions of Airbus Service Bulletin A320-53-1259, Revision 03, dated November 30, 2017, specify to install titanium angle part numbers D5337060121200 and D5337060121400, this AD allows the installation of titanium angle part numbers D5337060121295 and D5337060121495, respectively.

**(r) Other FAA AD Provisions**

(1) *Alternative Methods of Compliance (AMOCs)*: The Manager, International Section, Transport Standards Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the International Section, send it to the attention of the person identified in paragraph (s)(2) of this AD. Information may be emailed to: 9-ANM-116-AMOC-REQUESTS@faa.gov.

(i) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(ii) AMOCs approved previously for AD 2014-20-04, are approved as AMOCs for the corresponding provisions of this AD.

(2) *Contacting the Manufacturer*: As of the effective date of this AD, for any requirement in this AD to obtain corrective actions from a manufacturer, the action must be accomplished using a method approved by the Manager, International Section,

Transport Standards Branch, FAA; or EASA; or Airbus SAS's EASA DOA. If approved by the DOA, the approval must include the DOA-authorized signature.

(3) *Required for Compliance (RC)*: If any service information contains procedures or tests that are identified as RC, those procedures and tests must be done to comply with this AD; any procedures or tests that are not identified as RC are recommended. Those procedures and tests that are not identified as RC may be deviated from using accepted methods in accordance with the operator's maintenance or inspection program without obtaining approval of an AMOC, provided the procedures and tests identified as RC can be done and the airplane can be put back in an airworthy condition. Any substitutions or changes to procedures or tests identified as RC require approval of an AMOC.

**(s) Related Information**

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) EASA AD 2018-0091, dated April 20, 2018, for related information. This MCAI may be found in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2018-0795.

(2) For more information about this AD, contact Sanjay Ralhan, Aerospace Engineer, International Section, Transport Standards Branch, FAA, 2200 South 216th St., Des Moines, WA 98198; phone and fax: 206-231-3223.

**(t) Material Incorporated by Reference**

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless this AD specifies otherwise.

(3) The following service information was approved for IBR on [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(i) Airbus Service Bulletin A320-53-1259, Revision 03, dated November 30, 2017.

(ii) Airbus Technical Adaptation 80491184/005/2018, Issue 1, dated February 08, 2018. The date appears only on the last page of the document.

(4) The following service information was approved for IBR on November 7, 2014 (79 FR 59636, October 3, 2014).

(i) Airbus Service Bulletin A320-53-1014, Revision 2, dated September 1, 1994, including supplementary page 7A. Pages 1 through 3, 15, 19, 20, and 25 of this document are identified as Revision 2, dated September 1, 1994; pages 4 through 8, 10, 12, 16 through 18, and 21 through 24 are identified as Revision 1, dated May 26, 1993; and pages 9, 11, 13, 14, and 26 are identified as the original, dated June 25, 1992.

(ii) [Reserved]

(5) For service information identified in this AD, contact Airbus SAS, Airworthiness Office – ELIAS, Rond-Point Emile Dewoitine No: 2, 31700 Blagnac Cedex, France; phone: +33 5 61 93 36 96; fax: +33 5 61 93 44 51; email: [account.airworth-eas@airbus.com](mailto:account.airworth-eas@airbus.com); Internet: <http://www.airbus.com>.

(6) You may view this service information at the FAA, Transport Standards Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

(7) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to:

<http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued in Des Moines, Washington, on April 10, 2019.

Dionne Palermo,  
Acting Director,  
System Oversight Division,  
Aircraft Certification Service.

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